

JAPAN

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JIS S 0022-3 (2007) (English): Guidelines for
older persons and persons with disabilities --
Packaging and receptacles -- Tactile indication
for identification

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*The citizens of a nation must
honor the laws of the land.*

Fukuzawa Yukichi

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**Guidelines for older persons and
persons with disabilities —
Packaging and receptacles —
Tactile indication for identification**

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Foreword

This translation has been made based on the original Japanese Industrial Standard established by the Minister of Economy, Trade and Industry, through deliberations at the Japanese Industrial Standards Committee in accordance with the Industrial Standardization Law.

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Guidelines for older persons and persons with disabilities— Packaging and receptacles—Tactile indication for identification

Introduction

This Japanese Industrial Standard specifies the guidelines for placing tactile indication for identification on packaging and receptacles for many people including persons with visual disabilities to identify consumer products safely and easily without errors with a help of tactile indication for identification placed on packaging and receptacles.

This part of **JIS S 0022** will enable appropriate tactile indication for identification to be placed on packaging and receptacles, and at the same time, the spread of packaging and receptacles attached with tactile indication for identification is expected.

1 Scope

This part of **JIS S 0022** specifies the guidelines to be taken into consideration when tactile indication for identification is placed on packaging and receptacles for many people including persons with visual disabilities to identify products without errors in ordinary activities covering from purchase to segregation and discharge of consumer products.

NOTE : Distinctive shapes of packaging and receptacles are effective for tactile identification, and thus, are described in the examples in this part of **JIS S 0022** as ones that are equivalent to tactile indication for identification.

2 Normative reference

The following standard contains provisions which, through reference in this text, constitute provisions of this Standard. The most recent edition (including amendments) of the standard indicated below shall be applied.

JIS S 0025 *Guidelines for all people including elderly people with disabilities — Packaging and receptacles—Tactile warnings of danger—Requirements*

3 Terms and definitions

For the purposes of this Standard, the following definitions apply.

3.1 tactile indication for identification a generic name for indications by letters, figures, etc. which utilize the tactile when a packaging or receptacle is touched for identification of the products

3.2 embossed lettering Hiragana, Katakana, Kanji, alphabets and numeric characters which are shown in a convex condition on a surface, a part of tactile indication for identification

3.3 symbols signs and figures used for identification, a part of tactile indication for identification

3.4 notch a cut for identification on a part of an outer circumference of packaging and receptacles, a part of tactile indication for identification

3.5 package presentation a generic name for types and shapes of packaging and receptacles

4 General consideration matters for tactile indication for identification

4.1 Products or package presentations requiring tactile indication for identification

Products or package presentations requiring tactile indication for identification are as follows.

- a) Among products that have a high possibility to cause physical risks by misuse and accidental ingestion, those specified in **JIS S 0025** shall be attached with convex indication of danger warning on the packaging and receptacles.

Figure 1 shows an example of the indication.

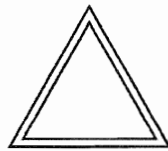


Figure 1 Convex indication of danger warning

NOTE : Products on which a convex indication of danger warning shall be applied are shown below.

- a) Insecticide and fungicide, herbicides and rodenticides for kitchen gardens that “Poisonous and Deleterious Substances Control Law” and “Agricultural Chemicals Regulation Law” apply
 - b) Among quasi drugs defined in “Pharmaceutical Affairs Law”, indoor insecticides, rodenticides, repellent and others for household use that are not directly applied on the human body
 - c) Products under “danger when mixed with others”, those under “strict prohibition of fire”, and those under “precautions against fire and high temperature” (excluding cosmetics)
- b) As ones equivalent to a danger, products that are physically harmful if accidentally ingested shall be attached with tactile indication for identification on the packaging and receptacles.

NOTE : Alcohols may be harmful if accidentally ingested by persons who physically reject it or by children.

- c) For products whose package presentations are similar and which have a high possibility to cause discomfort or damage by a misuse or accidental ingestion, tactile indication for identification should be attached on the packaging and receptacles.

NOTE 1 As a reference to judge the necessity of tactile indication for identification, “needs map of tactile indication for identification” is shown in Annex A.

NOTE 2 For users of tactile indication for identification, a tactile indication for identification standardized in the industrial society is desirable.

4.2 Types of tactile indication for identification

Tactile indication for identification includes braille, embossed letterings, symbols, and notches. Tactile indication for identification that is considered to be the most appropriate for the concerned product or package presentation shall be attached.

NOTE : As a means equivalent to tactile indication for identification, it is effective to have variations of cap shapes in a series of products with the same or similar receptacle shapes, or to use distinctive shapes of packaging and receptacles for tactile identification.

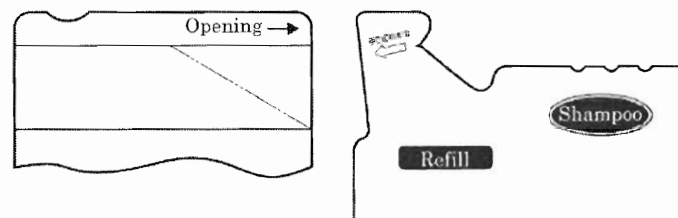
Example Examples of tactile indication for identification are divided into “an example of braille and embossed letterings” and “examples of notches”, and shown in figure 2 and figure 3.

a) Example of braille and embossed letterings



Figure 2 Braille of BODY and embossed letterings of BODY

b) Example of notches



NOTE : “Consideration matters for content identification of packaging and receptacles in the same or similar shapes” are specified in JIS S 0021.

Figure 3 Notches in paper pack for liquid and pouch for refill

4.3 Position and direction of tactile indication for identification

The position and direction of tactile indication for identification shall be as follows.

- a) Tactile indication for identification should be attached at a site that is easily recognized. Generally, a position that is touched first when the packaging or receptacle is used or that is always touched during the use is desirable. In addition, it is recognized more easily if the indications are attached at multiple sites than at just one site.
- b) For the tactile indication for identification to be confirmed during the duration of use, they shall be attached at a position where it is not cut off when the product is opened.

NOTE 1: Tactile indication for identification is more needed at the time of use than at the time of purchase.

NOTE 2: **Examples of position and direction of tactile indication for identification**

The examples of the positions and directions of tactile indication for identification are divided into “examples of convex indication of danger warnings,” “examples of tactile indication for identification including braille and symbols for alcohols,” “examples of tactile indication for identification on packaging and receptacles of similar shapes” and “examples of other tactile indication for identification”, and shown in figures 4 to 17.

1) Examples of convex indication of danger warnings

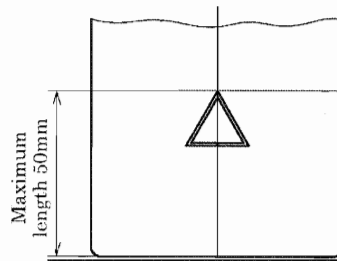


Figure 4 General position of a convex indication of danger warning (See JIS S 0025.)

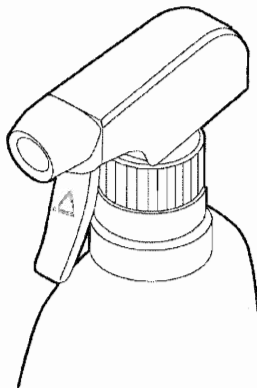


Figure 5 A convex indication of danger warning of at the lever part

2) Examples of tactile indication for identification including braille and symbols for alcohols

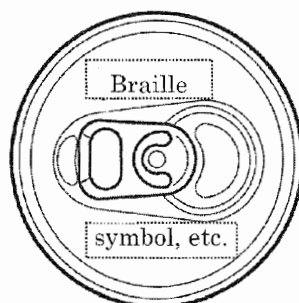


Figure 6 Braille, symbol, etc. on top of canned alcohol including beer

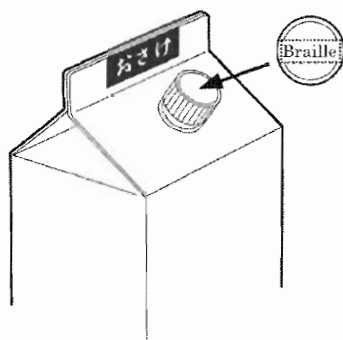


Figure 7 Braille at the cap part of alcohol including refined sake packed in a paper receptacle

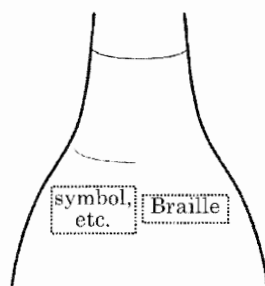


Figure 8 Braille, symbol, etc. for alcohol including wine contained in a glass bottle

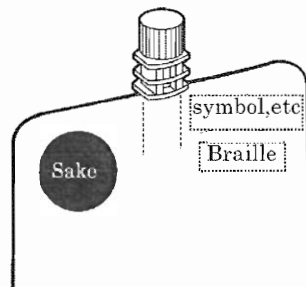
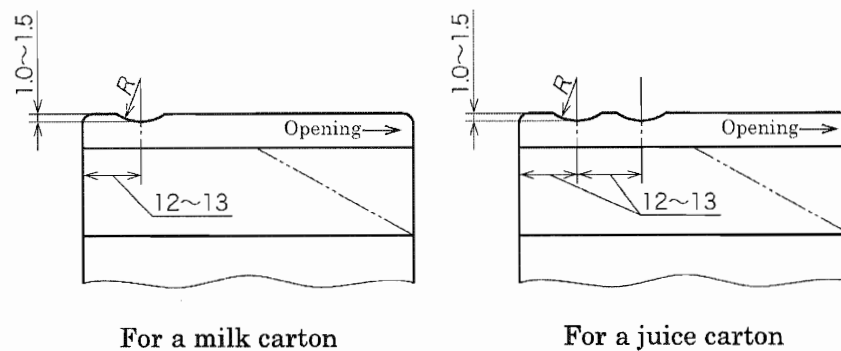


Figure 9 Braille, symbol, etc. for alcohol contained in a pouch

3) Examples of tactile indication for identification on packaging and receptacles of similar shapes

Unit : mm



The radius of the notch R shall be 2.5mm or 6.5mm.

Figure 10 Notches at the top part of paper carton for liquid (See JIS S 0021.)

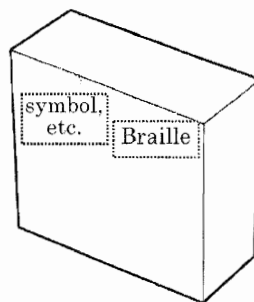


Figure 11 Braille, symbol, etc. on a paper box

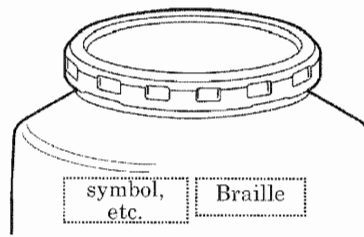


Figure 12 Braille, symbol, etc. at the shoulder part of a glass bottle

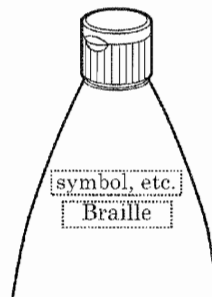


Figure 13 Braille, symbol, etc. at the shoulder part of a soft bottle



Figure 14 Serrated surfaces of a shampoo bottle on the side of the body and at the top of the pump

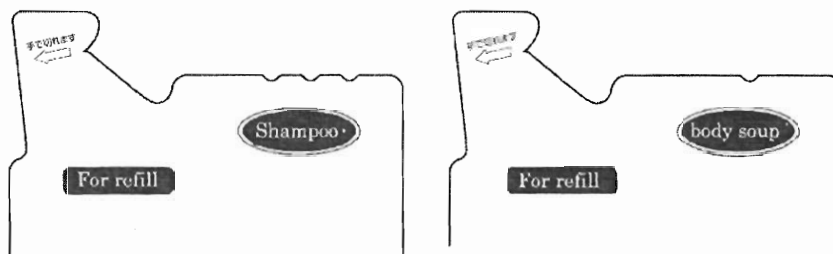


Figure 15 Notches in the pouches for refill of shampoo and body soap

4) Examples of other tactile indication for identification

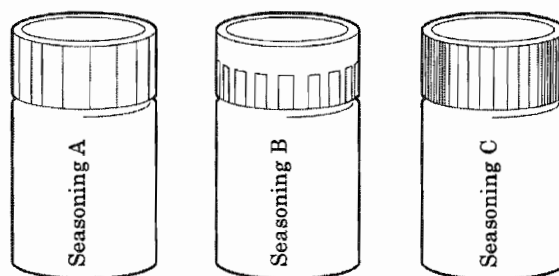
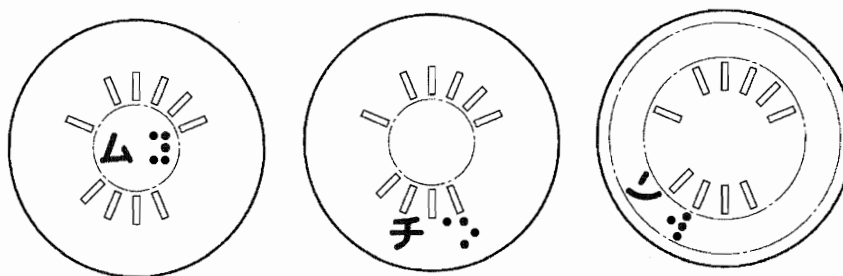


Figure 16 Tactile identification by different cap shapes (knurling) of receptacles (See JIS S 0021.)



NOTE 1 ム = Colourless チ = Brown colour (チャ by braille) ソ = Other recycle categories

NOTE 2 The figures show examples of indication positions, and actual indication positions differ according to the shape of the bottom part.

Figure 17 Tactile indication for identification for recycling at the bottom part of glass bottles

5 Consideration matters for tactile indication for identification by embossed letterings, symbols, etc.

Tactile identifications by embossed letterings, symbols, etc. shall be as follows.

- a) Embossed letterings, symbols, etc. shall be of sizes and heights that are identifiable when traced by fingertips, and also be simple shapes that their differences can be easily identified.

NOTE : The braille is read by touches with fingertips while embossed letterings, symbols, etc. are identified being traced with fingertips.

- b) For letters used as embossed letterings, those that can be easily identified by touches with fingertips shall be selected.

Examples みず・ミズ → 水 絹（豆腐） → キヌ そーす → ソース
ボディ → BODY

NOTE : For similar letters (フ and コ, ソ and ン, テ and チ, コ and ユ, ケ and ク, ア and マ, バ and ベ, 0 and D, B and 8, or ム and ク when they are upside down), consideration shall be given to the shapes of the letters so that they cannot be wrongly read.

- c) A shape of a notch shall be such that it is not wrongly recognized as an opening.

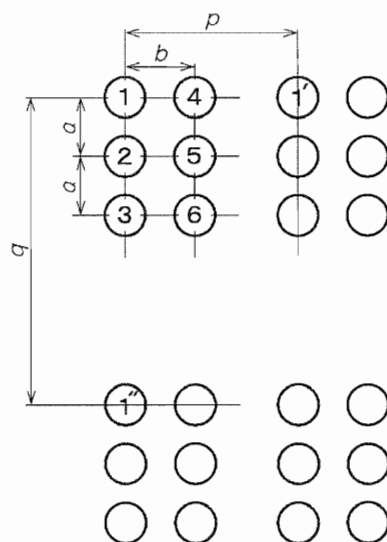
6 Consideration matters for tactile indication for identification by braille

6.1 Interval and cross-sectional shape of braille

The shapes and sizes of braille used as identification indications of packaging and receptacles shall be as shown in table 1 and table 2.

Table 1 Interval of braille

Unit : mm



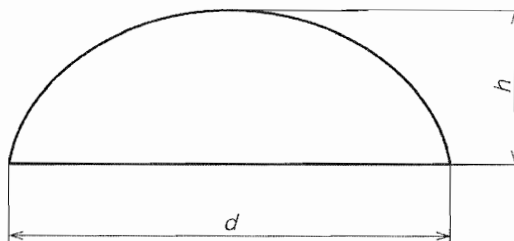
- a : between 1-2 points, between 2-3 points
 b : between 1-4 points
 p : a measure area / between transverse 1-1' points
 q : a line area/between vertical 1-1'' points

	Distance between centres
a	2.2 to 2.5
b	2.0 to 2.5
p	5.1 to 6.3
q	11.0 ^{a)} to 15.0
Note ^{a)} : Only when a is between 2.2 mm and 2.3 mm, the lower limit of q can be made to be 10.1 mm.	

b	Range of p
2.0	5.1 to 6.0
2.1	5.2 to 6.1
2.2	5.4 to 6.2
2.3	5.6 to 6.3
2.4	5.8 to 6.3
2.5	6.0 to 6.3

Table 2 Cross-sectional shape of Braille

Unit : mm



	Size
d	1.3 to 1.7
h	0.3 to 0.5

d : diameter of the bottom face

h : height of the centre of the point

NOTE : When made with ultraviolet curable resin ink, they shall be of a quality specified in JIS T 9253.

6.2 Principles for indications with braille

Principles for indications with braille to show product content shall be as follows.

- Transcription with braille shall be made clearly and accurately.
NOTE : For transcription with braille, there is “Japanese braille transcription rules” issued by Japan Braille Committee.
- The direction of an indication shall be such that it is read from the left to the right or from top down.
- When there is a possibility for the indication to be missed to be read if placed at only one site, or that the indication sites at the time of purchase and during the use differ, multiple indications shall be placed.
- Other convex stimulants including embossed marks, a frame of the receptacle itself, etc. that may interfere with the reading by touches shall not be made adjacent to the indication with braille.

6.3 Contents indication with braille

Contents indicated by braille should be such that the contents and kind of the product can be identified as specifically as possible.

NOTE : Only when the contents can be guessed sufficiently, the indication can be made with partially abbreviated letters.

Examples “おさけ” → “びーる”, “しょーちゅー”

7 Consideration matters when braille and other tactile indication for identification are used together

Consideration matters when braille and other tactile indication for identification are used together are as follows.

- a) When multiple tactile indications for identification are placed, the intervals between indications shall be such that multiple indications cannot be simultaneously touched with fingers during identification.

Example If multiple tactile indication for identification, including the braille of “おさけ” and an arrow indicating the direction to open, are placed on a top face of a narrow cap, the arrow interferes with the reading of the braille.

- b) When braille and other tactile indication for identification are used together, the other indication should be placed at the upper part and the braille at the lower part if they are placed vertically, and the other indication should be placed at the left and the braille at the right if they are placed transversely.

-
- References : JIS S 0021 *Guidelines for all people including elderly and people with disabilities—Packaging and receptacles*
- JIS T 0921 *Guidelines for all people including older persons and persons with disabilities—Methods of displaying braille sign—Public facility*
- JIS T 9253 *Performance and test method of ultraviolet ray hardening resinous braille*

Annex A (informative)

Needs map of tactile indication for identification

Introduction

This Annex is to supplement the matters related to the text and not to constitute the provisions of this Standard.

A.1 Needs map of tactile indication for identification




The degree of necessity of tactile indication for identification differs depending on the contents of individual product and its packaging and receptacles.

Discomfort and damage caused by false recognition derive from “what the content is”, and whether or not a product is likely to be wrongly recognized is mainly influenced by the similarity of the shapes of the packaging and receptacles (the difficulty level of tactile identification).

A matrix of these relationships organized for self-judgements shown in table A.1. Typical survey results are listed as examples.

In addition to the similarity of the shapes of the packaging and receptacles, the possibility of the false recognition differs depending on whether or not the places of purchase, storage and use are the same, or whether or not the product can be identified by the odour of the content. Even if the false recognition occurs, the degree of discomfort and damage differs depending on the individual purpose and method for using the product. It should also be considered that tactile indication for identification is more needed during the use than at the time of purchase. As a means equivalent to tactile indication for identification, distinctive shapes of packaging and receptacles are also effective.

Table A.1 Needs map of tactile indication for identification

Needs of tactile identification  = High  = High to moderate  = Low				
Similarity of shapes (Difficulty in tactile identification)				
<div>High (same)</div> <div>Moderate (similar)</div> <div>Low (different)</div>				
Danger/ harmful				
<div>(1) Products that are likely to be dangerous when wrongly used or accidentally ingested and are specified in JIS S 0025 shall be attached with convex indication of danger warning on their packaging and receptacles.</div> <div>* Object products: ① Products that Poisonous and Deleterious Substances Control Law and Agricultural Chemicals Regulation Law apply</div> <div>② Insecticides for household use, insecticides for protecting houses, rodenticides, repellent</div> <div>③ Products under "danger when mixed with others", those under "strict prohibition of fire", and those under "precautions against fire and high temperature" (excluding cosmetics)</div> <div>(2) Alcohols that may be harmful for some people when ingested accidentally, braille, symbols, etc. of alcohol shall be attached on the packaging and receptacles.</div>				
Discomfort and damage (accompanying misuse or accidental ingestion)	High	<div>① Canned products (for humans versus pets)</div> <div>② Plastic bottles (shampoo versus conditioner)</div>	<div>① Plastic bottles (conditioner versus body soap)</div> <div>② Tube products (toothpaste versus others)</div> <div>③ Plastic bottles (liquid detergents versus finishers)</div>	
	Moderate	<div>① Canned products (fish/meat versus fruit)</div> <div>② Drinks in carton (milk versus others)</div> <div>③ Drinks in PET bottle (water versus others)</div> <div>④ Tube spices</div> <div>⑤ Various spices/seasonings (those not identifiable by odour)</div> <div>⑥ Various refill pouches</div> <div>⑦ Various pouched foods</div> <div>⑧ Boxed food (frozen food versus refrigerated food)</div>	<div>① Soft plastic bottles (mayonnaise versus ketchup)</div> <div>② Tube products (skin cream versus face cleansing agents)</div> <div>③ Bottled food (jams versus others)</div>	
	Low	<div>① Canned products (differences in kinds of fruit)</div> <div>② Canned alcohols (beer versus liquor)</div> <div>③ Differences of hotness in retort curry</div> <div>④ Soft tofu versus hard tofu</div> <div>⑤ White wine versus red wine</div> <div>⑥ Various spices/seasonings (those identifiable by odour)</div>	<div>① Alcohols contained in one-shou (Japanese scale) bottles (Refined sake versus shochu)</div> <div>② Various cupped foods</div> <div>③ Various boxed sweets</div>	<div>① Differences of whisky brands</div>

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